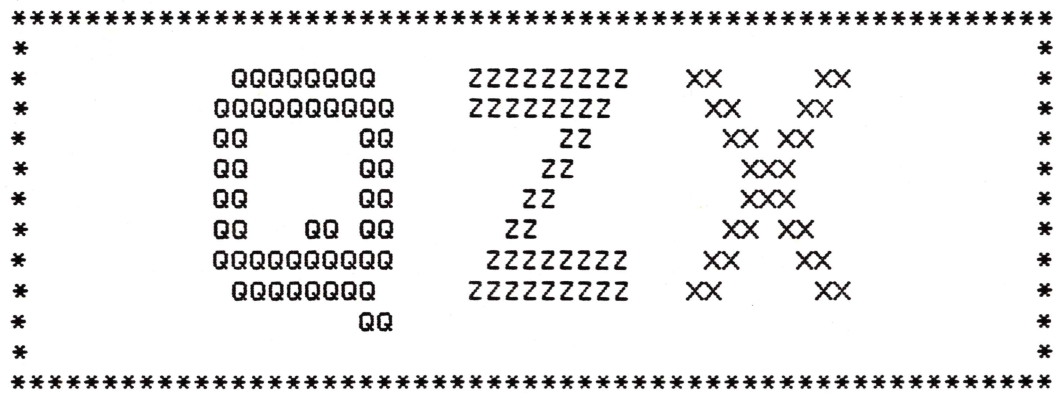
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The Journal Covering Amateur Radio & Sinclair Computers
ZX80; Micro-Ace; ZX81; TS1000, 1500, & 2068; QL; Z88
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* EDITOR'S NOTES K5XY
* QZX FRIENDS
* UNCLASSIFIED ADS
* QL PACKET OPERATING SYSTEM W6JPB
* QL MODATOR WA6DLI

EDITOR'S NOTES
K5XY

The effort to improve QZX goes on. As I was printing the August issue, I noticed a mispelled word in the permanent part of the magazine. It has now been corrected. It has been mispelled in every issue for almost the last two years. I imagine that this is not an earth shaking discovery; because nobody else appears to have noticed it either. I will not tell you what word it was, but will leave it as a puzzle for the interested reader, if any.

It might be worth noting that the Tim Ward mentioned last issue in connection with the developing public domain library of Sinclair programs is not the Tim Woods of Time Designs Magazine.

QZX FRIENDS

WA3QLV -- Leslie has had some big changes in her life. She is starting to work with her kids on her Timex computers. She is also gathering the parts to put up a repeater using the RPT-1000 article published in the July QZX. She is on packet with a MFJ-1270B and can be reached via K3WKK.

K8NZZ -- Bob said that he would like to see an article on an interfaceless RTTY program for the QL like the one he has for his Tandy computer. QZX would like to publish such a program if somebody would send it to in.

N9GIH -- Ken says the he has noticed that the quality of the technical articles has increased lately.

WB3JDP -- Hal made a donation to the postage fund and suggested that a collection of QZX articles on packet be published. That sounds like a good idea but I am not sure how many really are interested. If you are, drop me a card. Hal uses a TS2068 with two Oliger disk drives, a Tandy printer, Tasword word processing, and two monitors - one black and white and the other color.

UNCLASSIFIED ADS

WANTED: UNCLASSIFIED ADS for publication in QZX. Cost is 1 cent for each keystroke (characters, blanks, etc.). Payment must be included with order. This is an excellent way to sell your program or unwanted equipment, ask for help, or find a specific program. Send your ad with payment to QZX, 2025 O'Donnell, Las Cruces, NM 88001.

QZX Discount: 15% discount on all orders mentioning QZX. T & C Services (address in ad in this issue).

WANTED: A Hunter Board. Fully populated if possible. Warren Tucker, 348 Idors Ave, Vallejo, CA 94591. Ph 1 (707) 643-5013. Or, by way of Packet BBS to WA6OUC@KJ6FY.#NORCAL.

WANTED: I need the owner's manual/schematic for Denton GLA 1000B amplifier. Will pay all costs. Hal Schweikart, 753 Yeadon Ave., Yeadon, PA 19050 (215)623 7435.

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Quill (QLWP) and QCode Can Do! A Packet Operating System with a BareBones QL, Modaptor, TNC and Station Rig or Handheld Radio.

by Joe Wilkerson W6JPB QZX 40M net
Adapted for QZX Journal by Bob Howard, WA6DLI

In the previous QZX discussions of the QL on packet, Alex K5XY was very enthusiastic but short on hardware details, and Bob Diggs, KV3Q was using mtv_term (adapted from the British QUANTA library).

The problem with mtv_term for Bob was that it couldn't capture files or prepare them for transmit and was missing a cursor. He was using it because he had not been able to make QCode work with his system.

This is a preliminary story, put up so QZX QL owners can experiment and refine the method. It came about because WA6DLI suggested a QL as the cheapest computer with storage media that a low budget ham could start with using only a TNC, rig, TV and antenna. This was a triple whammy for the new ham Brian Burke, N6VBM since he had just passed his tech license, gotten on the air and was new to ham radio, packet, and computers!

Bob, WA6DLI realized slowly the fact that Joe had been on the QZX net (7235 KHz 10 am Local PT Sat) for months and months using a QL with QCode and had been passing BBS mail to WA6DLI formatted with Quill and QCode, something that had eluded the CATS member who had reported his efforts in QZX.

The method Joe developed was to put a barebones copy of QLWP or Quill on a microdrive cartridge with QCode and some few utilities that are used to modify Quill as a file handler for QCode.

Before outlining the method, here is the starting package: 1 Miracle Modapter which comes with QCode terminal software and will connect to the TNC with a DB-25 plug. 2 A QL with the four Psion software packages. The latter is $99 from Sharps at the present time. (It is possible that the modapter may not be necessary, but is worth the cost to get QCode, which can also be used with a telephone modem.

Now what to do...after reading the QLUG manual (QL User's Guide) and hopefully being familar with the word processor Quill (sold in US as QLWP) and having cloned copies of original QCode and Quill, you will make up a microdrive cartridge with the following programs on it.

a. Quill or QLWP
b. Install_bas
c. Printer_dat
d. Boot

Items a, b, c, d are copied from a working copy of Quill (QLWP) to a new formatted cartrige with original in mdv1_ and blank formatted cartridge in mdv2_. (You should read QLUG to learn how to copy files and programs. ICE, the Icon controlled environment, is a Mac like front end that is very helpful for new users of the QL. It plugs in as ROM cartridge on the

back of the QL.

Now with these four programs on the tape edit the boot_ file name that came from Quill, to be WP_bas (i.e. you change the name of the file from boot_ to WP_bas, but it is still a boot file, but won't boot from F1 or F2 turn-on command.)

Take the Quill working copy out of mdv1_ drive and replace it with a working copy of QCode. Now copy only the files Terminal and Boot to the microdrive cartridge that you put on a, b, c, d. The reason for copying the two boot programs, one with a different name is so that you can use the start up boot and call the WP by a "lrun mdv1_WP_bas", not having to use exec (starting command for a machine code program). By using the boots you get all the windows etc. set up as well.

Now with Joe's technique we will configure QLWP or Quill for use in QCode and give the steps to write a file in Quill for transmission in QCode on packet and to capture a file in QCode for editing and printing with Quill.

With the special cartridge so far produced in mdv1, do the following command: lrun mdv1_install_bas

A list of printers will come up on the screen... select 'default' as the printer, regardless of your actual printer as the setting we are going to make are only for the QCode screen and use.

When 'default' is chosen to edit, a list of options is shown. Use the first letter of the line to select and:

1. lines per page..... 0
2. end of line to LF (only)

Hit enter to end the editing session, follow the prompts if I didn't remember all steps. When you leave Install_bas following the prompts you will have the printer_dat configured on mdv1_ as it is needed to work with QCode.

Remove the cartridges from the drives and reset the QL, put it the special cartridge in mdv1_ and press F1 if you have a monitor or F2 if you have a TV for a screen display. The boot you left intact, should cause QCode to load and run. When you get the QCode logo, hit F3 as directed. You will get a screen with a box at the top that appears to be called 'BACKUP DIRECTORY' and has other words under it. Be forewarned, that is not a title, just two of the commands among many, called Backup and Directory. Type I and enter and you will get a new menu with a bar like window showing things like ON LINE, BAUD, and EVEN (parity). Hopefully, having read the QCode instructions about 'I' you will toggle the three settings to give: ON LINE BAUD 300 and EVEN. Hit enter to leave, and if necessary D to get directory again. Now hit B for backup and it

will save a new terminal_bas with your settings over-writing the old, on mdv1_.

When QCode returns you can go to I to see that you do have your new settings, then hit Enter to return to the Directory and hit Q to quit QCode. You will be returned to SuperBasic (if using ICE, type ICE to get the ICE screen). Now load Quill by: lrun WP_bas (the new Quill boot you renamed).

Hit F3 for Quill commands and D for Design when the Quill format comes up (don't use help F1 as we did not load help files to save room on cartridge for QCode etc.).
In Design..set Upper margin to 0
set Bottom margin to 0
set Page length to 0
(Even after change to same in the install_bas procedure you did!)
Hit Enter when done.
Choose F3, M for Margins.
Hit L for Left margin and use left arrow to move it to 0 (at left). Then choose I for Indent, and use left arrow to move it to 0 (at left). Hit enter to leave and complete settings.

Put a formatted blank cartridge in mdv2. This will be your files for send and receive messages in packet. You are still in Quill or QLWP, so we will write a message that can be sent by QCode in packet or to land line. Type several lines in Quill. If your mind is blank type: This is a test by 'call'. The quick brown fox slyly jumped over the lazy dog. I am in Quill and will send a message by QCode!

Now we are going to pretend to print it, but will really make an ASCII file that QCode can use to send with. Hit F3, P for print. Then Enter, Enter. Now one more enter and it would print to a printer and that we don't want. Instead type from the keyboard, mdv2_mess_msg Look what happened, printer disappeared and you now have your mdv2 running and putting your message on it. It is ready to be sent by QCode. Reset the QL and the boot you have left intact will load automatically the QCode program. unless you have ICE, which will make a screen (select terminal). You have the file cartridge in mdv2 for your test message and to capture a packet message from QCode.

For on air test have the Modapter plugged into SER2 and connected to your packet TNC. The TNC set to 300 baud and Even parity, 1 stop bit. (300 baud is fine for HF packet, but it would be nice to use higher baud on VHF..for now use 300!)

Hit F3 when the QCode Logo comes up in glorious color if you have color. You will find your misnamed BACKUP DIRECTORY (remember really two commands), and a list of UK phone numbers that are as useless as teats on a bull. Hit

Enter. Then I and toggle to LOCAL and check to see if baud rate is 300 and parity Even. They should be as we made them default. If not change them, and figure out how you goofed on doing the QCode 'backup' command. Hit Enter to fix settings, hit F3, hit T (for transmit, very important for ham radio, not V for Viewdata..a British 'Prodigy' type service.) Hit enter... the message you called 'mess_msg' should come on screen. (If it doesn't then copy mess_msg from mdv2 to mdv1 and try all again!). I am assuming with limited experience that QCode writes and reads from mdv2).

Read your message on the QCode screen..hopefully it is now there. Hit F3 and I and toggle to ON LINE from LOCAL. Now hit Enter and you are on the air with your message. (You may want to write a more suitable message to put on the air..hi hi!).

When you are receiving into QCode from the air..just hit F3 and L for log and all copy going on the screen will also go to a file named log_lis on mdv2. If you have read your Quill (QLWP) instructions you will know that a file with a suffix of _lis can import into Quill for editing and printing on the regular printer. You can write a long quill file and name it as we did for the test message and export it to QCode with the _msg suffix. The name mess we used can be anything that is not a key word and doesn't exceed the characters permitted for file names, including the underscore line_ and the suffix.

This should give all QL owners with a packet or telephone some useful ideas. This is not a mature product yet. The QCode utilities will allow the user to edit the QCode screen into a more suitable one for packet with Station Call, etc.

Joe, W6JPB has an old TNC with upgraded ROM that doesn't use Control Z to go to 'command' mode. Brian, N6VBM, now named Very Bad Memory, using an MFJ 1274 used the TNC reset to force command mode when absolutely necessary. Since mvt_term wrote around it..in super basic substituting ALT CTRL Z for CTRL Z, which the QL traps for its own use as a foreign character, it may be possible to set up a translate in the Quill design or write in a superbasic line somewhere to use the Alt Crtl Z.

So this is thrown out to the QZX readers and other newsletter reprinters, for a beginning. Will report more later.

Alex..the following exerpt might be useful to run with the W6JPB /WA6DLI arttcle. There seems to be a concensus that Modapter required for 300 baud but not higher and the wiring for a no Modapter cable is given at the end of this extract. 73 Bob

Alex..the following from ZX-Appeal Vancouver Sinclair Users Grp.

Mar 26/88 Harvey Taylor..What is a modaptor anyway?

One of my greatest disappointments with the QL when I originally got it was the serial ports. When I discovered I couldn't just hang a garden variety modem off the serial ports I was pe'od to say the least. I have written in the past reasons for these problems, however in brief the serial input for both ports is multi-plexed onto one serial input on the 8749 IPC (Intelligent Peripheral Controller) which has to watch the keyboard, make noise, and keep time as well. Consequently, the serial port has a tendency to drop characters now and then.

Another consequence of this arrangement is that the programmer does not have direct access to the device which controls the serial parameters, e.e. Data bits (5-8), Step bits (1-2), and Parity (none, even, odd, mark, space). You can ask QDOS to ask the 8749 to change the parity and Baud rate, however the internal ROM of the 8749 is forever (?) hidden from the programmer. If you're driving a printer, this doesn't much matter. However, if you want to get input from a modem in North America, problems arise. One problem is that just about every BBS in the world expects you to use 1 stop bit. The QL expects you to use 2 stop bits. The Modapter is a hardware device that gives you two stop bits. It also serves the function of generating a 75 baud output signal from a 1200 baud output signal. I have not looked at this function because it is only used in the UK with Prestel and those systems which expect 1200 baud receive/75 baud send protocol.

Here is the circuit and the other connections between the QL and the modem:

```
Q: (SER2)            CONNECTIONS              MODEM (DB-25)
*************************************************************
1 - GND ------------------------------------- 7 - GND
2 - TxD ------------------------------------- 2 - TD
3 - RxD ------------------------------------- 3 - RD
4 - nc
5 - nc
7 - Tied to QL pin 1
8 - +12 v. ---------------------------------- 4 - CTS
9 - +12 v. ---------------------------------- 20 -DTS
```

Note that the QL User's Guide in Concepts (Communications RS-232C page 13) refers to the British Telephone connectors used in Europe, the the DB9 connectors used in North America. The DB9 pins 6, 7, and 8 are tied to frame ground.

end quote: Hope this helps...Bob WA6DLI

73, K5XY

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